

11. (New) A mobile measuring device for monitoring leaks on gas lines, comprising an electronic navigation system and a computer unit with a geographic information and documentation system.

12. (New) The device as claimed in Claim 11, characterized by a satellite position measuring system.

13. (New) The mobile measuring device as claimed in Claim 11, characterized by electronic documentation of results measured by a gas testing device mounted thereon.

14. (New) The mobile measuring device as claimed in Claim 11, characterized by acoustic and/or optical guidance of an operator, using calculated navigation data.

15. (New) The mobile measuring apparatus as claimed in Claim 11, characterized by a supporting/measuring wheel.

16. (New) The mobile measuring device as claimed in Claim 15, characterized in that, by using the supporting/measuring wheel, a record of the path covered is recorded by the computer unit.

17. (New) The device as claimed in Claim 12, comprising a supporting/measuring wheel wherein the satellite position measuring system is coupled with sensors on said supporting/measuring wheel.

18. (New) The device as claimed in Claim 12, characterized in that the satellite position measuring system is coupled with sensors in measuring electronics, which extrapolate information

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about the position of the mobile measuring device by generating a distance vector in the computer unit.

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19. (New) The device as claimed in Claim 8, characterized in that the direction component of the distance vector and/or the magnitude of the distance vector is/are generated via an electronic compass, an orthogonal pair of speed sensors, a two-axis orthogonal acceleration sensor or a gyroscope.

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20. (New) A method of monitoring gas lines, comprising:

feeding navigation information about a predefined path into an electronic navigation system;

producing signals indicating the path to be taken by means of the electronic navigation system; and

moving a mobile measuring device in response to the signals indicating the path to be taken.
